REMARKS

Claims 11-17 are objected to for being misnumbered. These claims are renumbered in the amendments to the claims for the purpose of correcting typographical errors and not for purposes of patentability. Claims 1-18 remain for consideration. Reconsideration and allowance are respectfully requested.

The Office Action fails to show that claims 1, 5, and 13 are obvious under 35 USC §103(a) over "Hamlin" (US patent 5,574,964 to Hamlin) in view of "Filor" (US patent 5,844,609 to Filor et al.). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of Hamlin with teachings of Filor, and fails to show that the combination could be made with a reasonable likelihood of success.

Claim 1 includes various limitations of a circuit arrangement for providing a video signal from a plurality of digital video data channels. The limitations include a processor configured and arranged to interpret display commands; a selector circuit coupled to the processor and having a plurality of output ports and input ports arranged for connection to the plurality of video data channels, the selector circuit configured and arranged to select digital video data received at a first data rate from a subset of the channels responsive to an input selection signal from the processor and provide selected digital video data at the output ports at a second data rate that is half the first data rate; a plurality of data routers, each having an output port and an input port coupled to a respective one of the output ports of the selector circuit, and each data router configured and arranged to convert input video data from YCrCb format to RGB format; a video data sequencer coupled to the output ports of the data router, the sequencer configured and arranged to merge the selected video data into frames of video data; and a digital-to-analog converter coupled to the video data sequencer, the converter configured and arranged to generate an analog video signal from the frames of video data. The Office Action does not shown that the Hamlin-Filor combination teaches all these limitations.

For example, the limitations of the selector circuit are not shown to be taught by Hamlin's converter as the Office Action alleges. Hamlin's converter is shown as inputting signals from multiple sources in FIGs. 1 and 2. However, the description at col. 3, l. 23-54 indicates that the converter receives different types of signals and performs protocol conversion and/or demodulation as necessary to produce signals in a common format for transmission on the communication bus. Therefore, there is no apparent selection of video data by Hamlin's converter. Nor is there any apparent providing of the selected digital video data at an output rate that is half the input rate. Also, Hamlin's converter does not appear to have a plurality of output ports.

The limitations of the video sequencer and D/A converter are also not shown to be taught by Hamlin. Hamlin's interface pod 44 converts an input analog signal to digital data for a microprocessor to interpret the pod address and command instruction of the common bus signal. This is used to control the frequency synthesizer and voltage controlled oscillator to transmit the selected analog signal from the bus (col. 4, l. 27-51). These teachings of Hamlin clearly neither show nor suggest the claimed merging of selected video data into frames and converting the frames of digital video data to an analog video signal.

Filor teaches YCrCb to RGB conversion. However, the alleged motivation for modifying Hamlin with teachings of Filor is insufficient to support a *prima facie* case of obviousness. The alleged motivation states that "it would have been obvious ... to include the conversion from YCrCb to RGB into the interface pods, in order to allow for further processing of the video signal and for more advanced options for customizing and processing the displayed signal." This alleged motivation is improper because no evidence is presented to indicate that Hamlin would need or benefit from further processing of the video signal. Nor is any evidence presented to indicate that Hamlin would need or benefit from "more advanced options for customizing and processing the displayed signal." The "advanced options for customizing and processing the displayed signal" are not explained and not supported by evidentiary examples. The alleged motivation is a conclusion that is unsupported by evidence, and is therefore, improper.

Claim 5 depends from claim 1 and is not shown to be unpatentable for at least the reasons set forth above.

Claim 13 is a method claim and includes functional limitations similar to those explained above for claim 1. Therefore, claim 13 is not shown to be unpatentable.

The rejection of claims 1, 5, and 13 over the Hamlin-Filor combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

The Office Action fails to show that claim 18 is unpatentable under 35 USC §103(a) over Hamlin. The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by Hamlin and fails to provide a proper motivation for modifying the teachings of Hamlin.

Claim 18 is in means plus function format. The Office Action does not show that Hamlin suggests the functions of claim 18 that are common with the functional limitations of claim 1 as explained above. Furthermore, the Office Action does not consider the structure disclosed in the specification in alleging that the claims are unpatentable. ("the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination." *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994) MPEP 2181). Therefore, claim 18 is not shown to be unpatentable over Hamlin.

The alleged motivation for modifying Hamlin is the same as the alleged motivation for making the Hamlin-Filor combination. Therefore, the Office Action fails to provide a proper motivation for modifying Hamlin for at least the reasons set forth above for claim 1.

The rejection of claim 18 over Hamlin should be withdrawn because the Office Action fails to show all the limitations are suggested by Hamlin and fails to provide a proper motivation for modifying Hamlin.

The Office Action fails to show that claims 2-4 and 14 are unpatentable under 35 USC §103(a) in view of the Hamlin-Filor combination in view of "Lewis" (US patent 5,638,426 to Lewis). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of the Hamlin-Filor combination with

9

teachings of Lewis, and fails to show that the combination could be made with a reasonable likelihood of success.

Claims 2-4 depend from claim 1, and the limitations are not shown to be taught by the Hamlin-Filor-Lewis combination for at least the reasons set forth above.

The alleged motivation for modifying the Hamlin-Filor combination to include Lewis' compression is unsupported by evidence and improper. The alleged motivation states that "it would have been obvious ... to utilize a user-selectable compression ratio, in order to interactively determine the quality of the multimedia information and the speed of transmission and therefore bandwidth used." This alleged motivation does not support a *prima facie* case of obviousness because it simply states known benefits of compression without presenting any evidence to indicate that the Hamlin-Filor combination is lacking in bandwidth or is suitable for lesser quality video. The alleged motivation is therefore based on hindsight and improper.

The Office Action does not indicate, nor is it apparent, at what location in the structure of the Hamlin-Filor combination the compression would be employed. Thus, there is no apparent reasonable likelihood of successfully modifying the Hamlin-Filor combination with teachings of Lewis.

Claim 14 include method limitations comparable to the limitations of claims 2 and 4. Thus, claim 14 is not shown to be unpatentable over the Hamlin-Filor-Lewis combination.

The Office Action fails to show that the Hamlin-Filor-Lewis combination teaches the limitations of claim 3. Claim 3 includes limitations of the data routers being configurable for operation in a first mode or a second mode, wherein a single data router processes video data from a single channel of video data while operating in the first mode, and in the second mode a first data router processes a first half of the pixel data of a frame and a second data router processes a second half of the pixel data of the frame. The Office Action cites Lewis' primary and secondary layers. However, Lewis' examples of primary and secondary layers do not have any apparent relationship to frames as claimed. Lewis' examples include foreground and background information in video images, and news and background music in audio information. Therefore, the limitations of claim 3 are not shown to be taught by the Hamlin-Filor-Lewis combination.

The alleged motivation of combining Lewis with the Hamlin-Filor combination is improper because the alleged motivation relies on the sharing of compression functions as a reason for the combination, and claim 3 does not involve compression.

The rejection of claims 2-4 and 14 over the Hamlin-Filor-Lewis combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

The Office Action fails to show that claims 6-9 and 16 are unpatentable under 35 USC §103(a) in view of the Hamlin-Filor combination in view of "Coutinho" (US patent 5,808,659 to Coutinho et al.). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of the Hamlin-Filor combination with teachings of Coutinho, and fails to show that the combination could be made with a reasonable likelihood of success.

Claim 6 includes limitations of a first memory coupled to the processor and arranged for storage of graphics data to be overlaid on the video data; a second memory coupled to the sequencer and arranged for storage of the video data; and a pixel selector having input ports coupled to the first memory and to the second memory and an output port coupled to the digital-to-analog converter, wherein the pixel selector is configured and arranged to select graphics data from the first memory when graphics data is present. Coutinho's picture-in-picture teachings do not suggest these limitations. Coutinho describes an approach for processing images from digital video sources (Abstract), and there is no apparent reference to selection of graphics data as claimed. Furthermore, those skilled in the art will recognize the difference between Coutinho's approach for processing video data and the claimed circuitry and processing of graphics data in combination with video data. Thus, the limitations of claim 6 are not shown to be taught by the Hamlin-Filor-Coutinho combination.

The alleged motivation for modifying the Hamlin-Filor combination with Coutinho's PIP teachings is improper. The alleged motivation simply states the function and a use of PIP viewing. There is no evidence presented to suggest actually

modifying the Hamlin-Filor combination with teachings of Coutinho. Therefore, the alleged motivation is insufficient to support *prima facie* obviousness.

Claim 7 includes limitations related to circuitry for processing graphics data, and the Office Action does not show that the Hamlin-Filor-Coutinho combination teaches the limitations of claim 7 for at least the reasons set forth above for claim 6. Furthermore, Coutinho's video switch 38 does not correspond to the claim limitations of the third memory and the selection of priority graphics data. There is no apparent teaching that Coutinho's video switch does any selecting between two graphics sources and a video source. Further explanation is requested if the rejection is maintained.

The alleged motivation for modifying the Hamlin-Filor combination with Coutinho's video switch does not support *prima facie* obviousness. The alleged motivation states that "store and forward" is well known. However, "store and forward" is vague and not explained in the Office Action. Therefore, a citation to a prior art reference is requested if the rejection is maintained. Otherwise, the rejection should be withdrawn because the alleged motivation is unsupported by evidence and does not in any apparent way relate to the limitations of selection of priority graphics data over the other graphics data and over the video data. Therefore, the alleged motivation is improper.

Claims 8 and 9 depend from claim 6 and are not shown to be unpatentable for at least the reasons set forth above for claim 6.

Claim 16 is a method claim that includes limitations similar to the functional limitations of claim 6. Therefore, claim 6 is not shown to be unpatentable for at least the reasons set forth above.

The rejection of claims 6-9 and 16 over the Hamlin-Filor-Coutinho combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

The Office Action fails to show that claims 10-12 are unpatentable under 35 USC §103(a) over the Hamlin-Filor-Coutinho combination in view of Lewis. The rejection is respectfully traversed because the Office Action fails to show that all the limitations are

suggested by the references, fails to provide a proper motivation for modifying the teachings of the Hamlin-Filor-Coutinho combination with teachings of Lewis, and fails to show that the combination could be made with a reasonable likelihood of success.

Claims 10, 11, and 12 depend from claim 6 and include the limitations of claims 2, 3, and 4, respectively. Therefore, the Office Action fails to show that the Hamlin-Filor-Coutinho-Lewis combination teaches the limitations of these claims for at least the reasons set forth above for claims 2, 3, 4, and 6. Similarly, the alleged motivation for combining Lewis with the Hamlin-Filor-Coutinho combination is improper for the reasons set forth above in response to the alleged motivation for modifying the Hamlin-Filor combination with teachings of Lewis.

The rejection of claims 10-12 over the Hamlin-Filor-Coutinho-Lewis combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

The Office Action fails to show that claims 15 and 17 are unpatentable under 35 USC §103(a) over the Hamlin-Filor-Lewis combination in view of Coutinho. The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of the Hamlin-Filor-Lewis combination with teachings of Coutinho, and fails to show that the combination could be made with a reasonable likelihood of success.

Claims 15 depends from claim 14 and includes limitations similar to the functional limitations of claim 6. Therefore, the Office Action fails to show that the Hamlin-Filor-Lewis-Coutinho combination teaches the limitations of claim 15 for at least the reasons set forth above for claim 6. Similarly, the alleged motivation for combining Coutinho with the Hamlin-Filor-Lewis combination is improper for the reasons set forth above in response to the alleged motivation for modifying the Hamlin-Filor combination with teachings of Coutinho.

Claim 17 depends from claim 13 and is not shown to be unpatentable for at least the reasons set forth above.
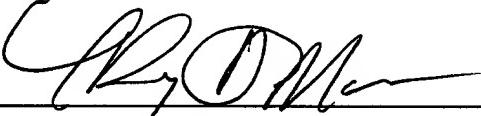
13

The rejection of claims 15 and 17 over the Hamlin-Filor-Lewis-Coutinho combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

Withdrawal of the rejection and reconsideration of the claims are respectfully requested. If the examiner has any questions or concerns, a telephone call to the undersigned is welcome.

No extension of time is believed to be necessary for consideration of this response. However, if an extension of time is required, please consider this a petition for a sufficient number of months for consideration of this response. If there are any additional fees in connection with this response, please charge Deposit Account No. 50-0996 (LMCO.004PA).

Respectfully submitted,

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